OFFICE, THE HERALD block, corner West Tample and First South streets, Salt Lake City. TERMS OF SUBSCRIPTION.

AILY, PER MONTH......85 CENTS lly, six months

lly, per year. 150
ml-weekly, per year. 200
mday, per year. Subscribers who fail to Sunday, per year... 200
COMPLAINTS.—Subscribers who fail to receive a single copy of THE HERALD should immediately notify the publishers. Readers who are unable to purchase THE HERALD at any news stand or on any railroad train in Utah, Idaho, Newada. Wyoming or Colorado, will ebige us by reporting that fact.

WASEINGTON BUREAU.—West End National Bank building, 1415 G street, N. W. NEW YORK OFFICE.-E, Katz, 230-224

Pemple Court building. CHICAGO OFFICE. - 87 Washington OCDEN BUREAU.-Utah Loan & Trust

Address all semittaries to HERALD COMPANY. Subscribers removing from one place to another, and desiring papers changed, should always give former as well as

METEOROLOGICAL REPORT.

Yesterday's Record at the Local Office of the Weather Bureau.

Salt Lake City, Utah, April 9, 1900. Maximum temperature, 36 degrees; min-

FIGHTING FOR FREEDOM.

The Boers are fighting to preserve their national integrity and independence. They are meeting the invader with as much heroism and intelligence as did our revolutionary forefathers and with more unanimity and better immediate success than distinguished the rebellion of the American colonies

This would seem to indicate, as the former assistant secretary of the interior at Washington says, that they are not coerced by Kruger, that they are far from being the slaves of tyrannous task-masters the Anglicized American press has painted them, but, on the contrary, are alive to their rights and imbued with the spirit of

There are reasons to believe that they have inherited their stubborn independent natures from the source of that inspiration upon which the New Englanders drew in the last century when they rejected a system of taxation similar to our Porto Rican tariff measure, and renounced the governing power at the cost of being called "traftors" by the hirelings of King George and the Tories who truckled to

This is the first time in the history of this republic when any people fighting for their freedom failed to find inspiration and encouragement in the sympathy of the United States gov-

Yet our Anglomaniac administration is silent; worse than dumb, as this exofficial, high in the counsels of his party and eminent in official circles, says; it is manifestly in sympathy with the English aggressor. This is the silence of Toryism.

CRUDE OIL FOR ROADS.

Since California has become an oilthrough the agency of crude oil. This | construction, it is said. is the result of similar experiments in Pennsylvania several years ago, from which satisfactory results have been

A leak in an oil pipe covered an extended with success and the perma- Moab. nence of the improvement rendered the

most as smooth as asphalt.

Utah field are successful in discovering county. oil here, its use upon some of our The sober and industrious populahighways would be an advantage to tion of Moab will doubtless be astonthe state if there were no other value ished when this boatload of orators to place upon the product. In the is seen approaching loaded down with event of failure to find oil there are the rapids they have shot. Naturally reasons to believe that brine from the the first impression of the populace will lake, sprinkled over the streets and be that the Uncompangre Utes are off highways of this valley, will be a their reservation again, in which event means of turning bad roads into good the crew will be awakened with a ones at a nominal expense. And there shot across Judge Johnson's bow. It are many highways and byways here- will be necessary then to raise Warner abouts that furnish room for consider- to the perpendicularity of a mast and

WATER AND CROPS.

With April showers in the valleys and a constantly increasing deposit of snow abundant harvest this year are bright- his place. ening daily, and the outlook on the range is very different from what it was two weeks ago.

Last winter was remiss in its duty to likewise possesses a keen sense of huthis intermountain region. The storms mor, as the following indicates: "If were few and far between. The snows one desires a sure cure for indigestion, were unevenly distributed. There were it is but necessary to read the editorials districts where seed and soil began to of one year ago in the Salt Lake Tribblow away in clouds of dust, and where une and compare the same with those farmers had made up their minds to abandon every idea of trying to raise the master then, but money is the any sort of a crop this year. We trust master pen today." this rainfall will induce them to recon-

sider that resolve. March was unusually fair and warm, and the little snow that lay in some of have happened for the Republican the southern mountains melted away. party," says the Man'i Messenger. Why, This storm may replace it, but the chief of course it is, The Messenger refused to value of the precipitation now favoring believe it until the returns were in, Utah is in the soaking the ranges and but it knows that a large number of valleys are receiving.

It means fat cattle and plenty of satisfied over the result. wheat and, if these foreign wars con-

Eastern states, whether seaboard or interior, get their proportion of river and harbor appropriations, but the arid states of the west get nothing, even while they contribute their share to these expenses.

More than that, these western states are obliged to contribute to the \$200,-000,000 a year being expended in tropical Asiatic islands "to prepare a place for our surplus population," while millions of acres of rich, productive soil, susceptible to irrigation and capable of a high state of cultivation lie here and there in tracts as large as the islands of the Philippine archipelago awaiting government attention.

One-tenth of the amount required in clearing off these Oriental islands would make homes for 20,000,000 of people in the arid west, without taking one penny from the annual expenditures for internal improvements in the east and south.

Yet there are westerners too partisan or too blind to their best interests to see or to admit that they see this.

POPULATION RATIOS.

A correspondent inquires concerning "the relative proportion of male and female inhabitants in this and in some of the larger nations of the earth." According to the eleventh census in 1890, there were in this country 32,067,-

880 males and 30,554,370 females. In almost every country in Europe except France, where the population is evenly divided between the sexes, there Maximum temperature, 39 degrees; minimum temperature, 39 degrees; mean temperature, 39 degrees; which is 44 degrees below the normal; accumulated ex55 degrees; accumulated excess of temperature since Jan. 1, 595 degrees. Total precipitation from 6 p. m. to 6 p. m., .34 inch; accumulated excess of precipitation since first of month, 8 0inch; accumulated deficiency of precipitation since Jan. 1, 1,88 inches. 1,040; Germany, 1,039; Austria, 1,034; Russia, 1,027, and France, 1,004.

The ratio varies in the various cities of this country. The male population of New York in 1890 was 747,579, the female 767,722; in Chicago the numbers were 568,402 males to 531,448 females; in Philadelphia 511,122 males and 535,842 females; in Boston the figures were 217,754 males and 230,723 females, and in St. Louis 228,114 males, 223,656 females. In Salt Lake City there are more men than women as there are throughout the state. The exact proportion will be discovered within the next few months, as the taking of the twelfth census is to begin in June.

COST OF THE CANAL.

"Reader" wants to know how much the Nicaragua canal has cost to date, how much work has been done and what is the lowest estimate on the

Aside from the expense of recent explorations and estimates ordered by ongress for the purpose of throwing light on the project and making clear whether a waterway across the Isthmus of Panama or via Rio San Juan and Lake Nicaragua would be the better and cheaper, a considerable amount of work has actually been done. The exact cost is unknown, and the approximate outlay can only be estimated from the nature of the country already traversed.

The excavation has been done principally along the line of the lower level -in the flat country east of the mountains and through the swamps of the San Juan river.

The heavy work lies in the mountain section, where a very deep cut of about five miles is to be made. Part of the work done so far has been preparatory to this, as a railroad will be required in the cut. To complete the canal will require \$100,000,000. The canal company claims to have exproducing state some experiments have pended several millions but the estibeen tried in road improvement mate given is based upon the entire

SHOOTING THE RAPIDS.

It is announced that Judge Jacob Johnson and his court stenographer, ceptionally bad piece of roadway with Attorneys Houtz, Warner and Whitecrude oil before the waste was dis- cotton of Provo, Judge L. R. Rhodes covered; this piece of road became the and Lawyer Woods of southern Utah, best part of it, and naturally attracted are on their way to the Grand river attention to the use and cost of oil in to embark in a large boat for a fishroad-patching. Every trial was at- ing and hunting excursion down to

"They propose to shoot the rapids," question of expense a secondary mat- says the report of their departure, and it's ten to one that they won't shoot But where oil is produced it isn't ex- anything else on the trip. The map pensive. A barrel of crude oil, costing fails to indicate just where these at the wells 90 cents, was sufficient for rapids are located, and we have sethe treatment of a strip of road 100 rious doubts as to whether anything feet long and twelve feet wide. The more rapid than that aggregation of oil mingles with the earth and forms a legal luminaries will be found between waterproof crust, with a surface al- the place they cut loose from their moorings and where they expect to If the prospectors now exploring the leave footprints on the sands of Grand

to run up Whitecotton as a sign of

If the Moabites are wise as they always appear to be, they will present a protocol to be signed before the party is allowed to land. After which court in the mountains, the prospects for an will convene with the stenographer in

> The Evanston News-Register keeps track of political affairs in Utah and now appearing daily. Honesty was

"Many Republicans claim that King's victory was the best thing that could Republicans in the state are secretly

The dissolution of the republic may be toked for soon, for it itself has said it.—

lar government without reference to popular approval.

A New York paper tells about "a wealthy old man being hypnotized by an actress," which is a very graceful way of expressing a very common in-

Dewey says his wife's religion is her own affair. Quite right. But an impression is also gaining ground that his politics is listed among her aff?

The police claim to have a mysterious burglaries going this city. A clew is good, but it id be better to get the burglar.

Austin, the capital of the Lone Star state, is in that unhappy condition of having "water, water, everywhere, but not a drop to drink.' David B. Hill has re-entered the pub-

lic eye like a cinder from the rapidly moving train of political events. Kansas City expects unusual prosperity at the hands of Democracy judging

from the altitude of hotel rates. AMUSEMENTS.

Business took a great stride at the Grand last night, and Manager Mulvey's face was relieved of its anxious look. In spite of the weather, the house was full and the audience was extreme was full and the audience was extremely demonstrative over "Knobs o' Tennessee." The play is one of the good old melodramas, with villiany foiled at every step and virtue superlatively triumphant in the end. It is modeled upon familiar lines, and tells a story of moonshiners in the Tennessee Tountains. The cast is a capable one, headed by Mr. Robert Germaine, who has a good presence and voice. Miss Toncray good presence and voice. Miss Toncray as the heroine also found great favor with the audience. The plece runs tonight and tomorrow night, with a popular matinee on Wednesday.

The sale of seats for Paderewski's re-The sale of seats for Paderewski's recital began yesterday at a lively rate at the Theatre. The front rows of all the circles and the center of the parquet were soon sold. Mr. Peery had the choice of seats, and engaged stall D. The sale will continue every day this The sale will continue every day this

The sale of seats opens at the Salt Lake theatre this morning for the Ward and Vokes engagement, which begins Thursday night. These reliable come-dians have already established such a reputation that the mere announcement of their coming is sufficient to create a demand for seats.

"Pinafore" was repeated at Christensen's last night, and the remarkable sucess achieved by the company makes it probable that the opera will be repeated in the near future.

BOOKS AND MAGAZINES.

"Barbara Frietchie" comes out this "Barbara Frietchie" comes out this month in the dress given by Clyde Fitch and worn with grace by Julia Marlowe. Whittier's stirring story is materially changed in this dramatized version of it. The incident of the poem becomes the climax and closing scene of the play and Barbara herself is a winning, lovely girl, instead of the "old gray head" of the Ouaker poet. This book version of the play is exactly as Miss Marlowe presents it. and has further interest from the fact that it contains good pictures in color and in black and white of the actress and of various scenes in the drama. The war tragedy naturally forms the background of the love story and is the cause of the final catastrophe. The letter press is that of the Life Publishing company.

Albert Shaw, in the April Review of Reviews, has an exhaustive article, with many illustrations, on the Hampton institute, under the title, "Learning by Doing." "The Great Street Makers of Pittsburg" and the "Frick-Carnegie Suit are treated by Julius Moritzen.

The trust question is dealt with by Professor Jenks of Cornell, who talks of "Publicity as a Remedy for the Evils of Trusts." Professor Jenks is entitled to an attentive hearing, in view of the statistical tables and charts showing the effects of combinations in prices which he cts of combinations in prices which he impiled as the expert to the industrial immission on trusts and industrial com-

The current number of Werner's Magazine contains articles of unusual interest to the audience for whom it caters. Mr. William Shakspere's lecture on "Vocal Interpretation" is given. The "Psychological Training of the Body" is presented by Mrs. Bishop. The literary article deals with Edgar Allen Poe, the man and his work in the world, apropos of the bust recently unveiled at the University of Virginia in memory of the most distinguished alumnus of that institution.

recently unveiled at the University of Virginia in memory of the most distinguished alumnus of that institution.

The last and most interesting word as to Poe comes in an able paper in the Iconoclast. The writer savagely attacks and refutes a series of articles recently published under the head "The American Rejection of Poe." A portion of the paper is quoted for its singular appreciation of the noet and the vigor of its style: "The English part of the western hemisphere has furnished one man who, in his single brain, united poesy, imagination, creative faculty, analysis of the highest order, logic irrefutable, utter originality and a matchless style. He is Edgar Allen Poe.

"The American Rejection of Poe' is the title of the symposium. Why, between the Canadian line and the gulf of Mexico, between Fortland, Me., and Portland. Ore, there are ten hundred thousand homes of which he is the tutelary genius. There is not a log schoolhouse in which "The Raven' is not spouted endlessly. There is not an American sleighing party in which the quotation 'Keeping time, time, time, in a sort of Runic thyme," would not be instantly capped with "To the tintinnabulation of the bells, bells. To the jingling and the tinkling of the bells. There is not an American boy or girl of 20 who has not felt his or her pulse sway to the swing of 'Annabel Lee.' There are few Americans of 40 who have not known the gripping gloom of the heart in reading 'The Haunted Palace;' known, too, that it came from a brain seared by alcohol. It was Poe's 'Chevalier Dupin' who begot Conan Doyle's 'Sherlock Holmes,' and he has no cause to be ashamed of his off-spring. 'The Tellitale Heart' stands today as earth's chief study in horror. The highest type of detective story, a type so high that it has been approached, but never touched, by imitators, finds its embodiment in "The Murders of the Rue Morgue' and "The Purloined Letter."

"In word painting of the terrible, The Fall of the House of Usher' has not been equaled by Kipling's 'Strange Ride of Morrowby tugese.
"The quotha? American Rejection of Poe,'
Verily, these folk be crazy!"

THE STATE PRESS.

Beaver Blade: The people of southern Utah didn't care who was snowed under so they got the snow. Snow is worth more than congressmen in this section of

Mt. Pleasant Pyramid: The opening gun of Utah's 1900 campaign has been fired, but it will be like a firecracker alongside of a thunderbolt when compared with what is in store for us this fall.

Logan Journal: The long and short of the matter is that expansion in the Re-publican sense is not possible without im-perialism. No one wants free intercourse with the Philippines, and unless congress has the power to regulate this, we must get rid of these islands by means of a protectorate or something of that sort.

... THE HERALD'S ...

Home Study Circle.

(Copyright, 1899, by Seymour Eaton.) Directed by Prof. Seymour Eaton.

TWENTY LESSONS IN FRENCH CONVERSATION.

26. I converse neither in German nor in

French.
Je ne parie ni français ni allemand.

Whenever negations, such as pas (not), rien (nothing), jumais (never), are used together with a verb, the word ne is required. Ne can be used with verbs only, and must precede them, as:

Je n'ai pas; I have not; —— nay pah.

Ne suis-je pas? am I not?

Nuh swee-zjuh pah.

N'avais-je pas? had I not? nah-vay ——

Je n'étais pas; I was not; —— nuh-tay pah.

27. Watch; la montre; — montr.

28. Clock; l'horloge; lor-lohge.

29. Figures; les chiffres; — sheefr.

30. Hands; les aiguilles; laze-ay-gwee.

31. Dial; le cadran; — kah-drong.

32. Timeplece; la pendule; — pon-dool.

Note—The French reckon time thus:

33. One o'clock; une heure; — euhr.

34. Five minutes after: une heure cinc.

33. One o'clock; une heure; — eunr.
34. Five minutes after; une heure cinq;
— sank; (or) une neure cinq minutes.
(The abbreviated time is preferred.)

35. Two o'clock: deux heures; — zeuhr.
36. Twenty after 2; deux heures vingt.
37. Half past 3; trois heures et demie; trwa zeuhr a demee.

Note-Literally this means "four o'clock, less ten." The former sentence means "three o'clock and a half." The following means literally "four o'clock and ten."

39. Ten after 4; quatre heures dix. 40. Fifteen to six; six heures moias un

42. 12 p. m.; minul'; mee-noo-ee.
43. Twelve thirty; midi et demie (a.m.).
44. Twelve thirty; minult et demie (p.m.).
Note-In speaking of time "donze heure:" is never used. It means "twelve hours."

To-morrow at 11 sharp. Demain à onze heures précises.

zeuhr pray-seeze.

48. Without fail? Sans faute? sang fote.

Reading Lesson.

The following is the proper translation of the French exercise of last lesson. The student will carefully compare the same as far as he is able, noting the difference in the

(1) The horses of Normandy are the mest in Europe. (2) The climate of this country is very mild. (3) It is milder in our country. (4) Many persons go to France to take the waters. (5) They are on the other side of the street. (6) What is that house at the corner? (7) Is that the Grand Opera House? (3) The vectables in France are very fine.

(8) The vegetables in France are very fine.
(9) Is the cooking in that restaurant good?
(10) Here they give excellent meals and at reasonable prices. (11) We are going to have rain. (12) Do you think it will be fine to-morrow? (13) How is your father-in-law?

38. Ten to 4; quatre heures moins dix.

quart.
41. 12 a. m.; midi; mee-dee.

45. How much will it cost?
Combien coûtera-t-il?
Kom-bee-yan koo-tra-teel.

46. When will it be ready?
Quand sera-t-elle prête?
Kong-s'rah-tell pret.

49. Shall I send for it?
Faut-il l'envoyer chercher?

50. Give me your address.

Donnez-moi votre adresse.

- share-shav.

LESSON NO. S. HUITIEME LECON.

A Few Useful Hints. 1. In former lessons we gave the student a brief outline of the article, i. e., the definite article "the." To make such important parts complete, we give now the indefinite article "a" or "an," and advise the student to compare it with the definite, making sentences with such nouns as he can remember.

The indefinite article "a" or "an" is expressed as follows: pressed as follows:

Before any masculine noun in the singular,

un, as: un frère, a brother; — frayr.

Before any feminine noun in the singular.

une, as: une hôtesse, a landlady; — oh-2. Of is usually translated into French by

2 Of is usually translated in the definition of the house.

La grandeur de la maison.

— grou-duhr

3. If, however, de stands before a coccel or house, it is rendered by d', as: of a (or) and d'un or d'une; dung; doon.

Memory Exercise. 1. Good-morning, sir; bonjour, mon-2. Good-evening, madam.

2. Good-evening, madaun.

Bonsoir, madame; —— swahr.

Note-The French do not say "good-more or "good-afternoon," but always greet one an with "bonjour" (good-day) or "bonsoir" (greening). In leaving one another at a later after supper, they say "bonne-nuit" (good-ni bohnn-nwee. 3. I thank you, I am well.

Je vous remercie, je me porte blen.

— ruh-mair-see — Note-Literally, "I carry myself wall. 4. How do you like the exposition? Comment trouvez-vous l'exposition? Kom-mong —

5. Have you been there? Y avez-vous eté? Ee -6. When were you there? Quand y avez-vous été? -

7. Are you going there again?
Y allez-yous encore? Ee --- zon-kore.

Quand? kong. The French "how do you do" is expressed
y "how do you go"—comment_allez-vous—
r "how do you carry yourself"—comment vous portez-vous; — por say voo.

9. How is your family? Comment va la famille? — fam-ee.

10. Come to see us; venez nous voir; ven-

construction of the two languages. It is advisable that each exercise be corrected, copied and again compared. When all is found to be perfectly correct, read each phrase aloud and study it by heart:

(1) The horses of Normandy are the finest in Europe. (2) The alignate of this country. nay noo voar.

11. I will see you later; à tantôt; taun-to.

12. Good-by; au revoir; o reh-vwar.
Au plaisir; o pläy-zeer.
13. Where is the barber shop?

Où est le bureau de télégraphe?

16. I thank you very much; merci bien.
17. Do not mention it. Il n'y a pas de quoi. Eel nec-ah-pa-duh kwa. Note-In French we do not say "I am waiking," but use the simple verb "I walk." which rule holds sood for any verb in any person and number. The student must remember that In order

Note—The most important rule in the division of syllables in French is that they are divided between consonants and seldout between vowels When a consonant stands between two vowels When a consonant stands between two vowels is belongs to the second syllable, not to the first. A consonant followed by "!" or "r" is never divided Termination of verbs always marks the beginning of another syllable. There are a few exceptions to the above rules, but of milnor importance. As for the rest, it is much the same as in English. ask a question—it becomes necessary to reverse the order of the verb and pronoun. Thus the verb is placed first and the pronoun last, both joined with a hyphen as: Marcheje (walk I), meaning: Do I walk?

Note—The student will find it the greatest possible assistance to write and rewrite these verbs, as well as those which will be given in the following lessons, pronouncing them aloud and repeating them over and over again, until he grows thoring them over and over again, until he grows thoring them over and over again, until he grows thoring them over again, until he grows thoring them. français; in French. Mesdames et messieurs; ladies and gentlemen. Beaucoup; many. De nos compatriotes; countrymen of ours. Comptez-vous? do you expect? D'y aller; to visit it. Souvent; often. Read and translate into English:
(1) Quarante-et-unième. Soixante-dixneuvième. Cent soixante-et-unième. (2) Quatre cent neuvième. Six cent douze. L'année mil neuf cents. (3) Neuf heures vinct. (4) Quatre heures vingt-cinq. (5)

Traverser; to cross; trah-ver-say. Arriver; to arrive; arr-cev-ay. Commander; to order; kom-man-day.

Manger; to eat mon-zjay.

18. Speak slowly, please.
Parlez lentement, s'il vous plait.
—— lant-mong.

19. Pronounce the word. Prononcez le mot.

Pro-non-say luh mo. 20. Repeat it again. Répétez-le; ray-pay-tay luh.
21. Say it once more.
Encore une fois; on-kor oon fwa.

22. Do you understand me? Me comprenez-vous? — 23. I do not understand you.

Je ne vous comprends pas;

24. I have made a mistake.
J'ai fait une erreur.
Zjay fay toon er-ruhr.

25. Which language do you speak? Je ne vous comprends pas: -

Quelle langue parlez-vous? Kell long ercise will be found in the following lesson, the will be published on next Tuesday.

RECENT SCIENTIFIC DISCOVERIES.

Note.-These papers on practical science have been prepared for The Herald's Home Study Circle by Professor William J. Hopkins of Drexel institute.

III.-DARK LIGHTNING. Lightning appears to us in various forms. It was recently classified as follows: Forked or jagged lightning, branched lightning, heat lightning, sheet lightning, globular lightning, dark lightning. Forked lightning is the usual severe kind. Branched lightning dark lightning. Forked lightning is the usual severe kind. Branched lightning intertwines and chases over the whole sky, forming an interlaced network. Heat and sheet lightning are but the general illumination of the cloud sheet or distant discharges. Globular lightning is that peculiar and infrequent phenomenon in which a ball of fire seems to move with compara-tive slowness or to roll about over the tive slowness or to roll about over the ground like a football. Persons are occasionally found who aver that they have dodged or jumped over these fiery footballs, which then burst. What they are has not yet been determined, and there are not a few people who doubt their existence. Dark lightning—there is no such thing in nature as dark lightning. By the term "dark lightning" is meant a certain peculiar —there is no such thing in hature as dark lightning. By the term "dark lightning" is meant a certain peculiar effect often produced upon a photographic film by lightning discharges. The name is due to the fact that the photographic image of a lightning flash, instead of being brighter than the surrounding sky, is darker. This refers, of course, to the print, not to the negative.

Photographs of Lightning. Within the last ten years it has be-

the lens uncovered and the slide drawn.
Then, after the occurrence of one or
more good flashes, that plate is removed and a fresh one exposed.

as follows:

The series of the externation of the expenditures for such purposes?

The series of a population of the expenditures for such purposes?

The series of a population of the expenditures for such purposes?

The series of the series of the series is and states a famentable fact that "this nation was never in such imminent peril as it is today." That was all during one of its lucid intervals on the series of the east and the south of the expenditures for such purposes?

The series of spray in the latter part of its action, undoes the work which was performed upon the film by the first part of these islands by means of a protectorate or something of that sort.

An Intellect Undermined. (Chicago Record.)

Kind Gentleman—My man, you are on the advanced why the western states and territories should protuce an image somewhat like this, because he has an excellent recipe for me out.

Quay is dear to the administration because he has an excellent recipe for me out.

Server of the expenditures for such purposes?

The camera of the expenditure with sufficient and blots out or completely reverses the currence of several flashes side by side, sometimes as many as ten or fifted camera were moved with sufficient and blots out or completely reverses the currence of several flashes side by side, sometimes as many as ten or fifted camera were moved with sufficient and blots out or completely reverses the currence of several flashes side by side, sometimes as many as ten or fifted camera were moved with sufficient and blots out or completely reverses the currence of several flashes side by side, sometimes as many as ten or fifted camera were moved with sufficient and blots out or completely reverses the breat and blots out or completely reverses the currence of several flashes side by side, sometimes as many as ten or fifted camera were moved with sufficient and blots out or completely reverses the tentre of the security and the currence of several flashes side by side, sometimes as many as ten or fifted were moved with

ning discharge, in passing through the air, heats the air very greatly and thereby creates a path of weakness through which a second discharge can pass more easily. Moreover, in the severe portion of the storm the wind is usually blowing with high velocity. This heated and weakened streak in the air is thus carried bodily onward, with little or no distortion in shape for several seconds, at least: and if the

sition. (15) Comptez-vous y aller souvent?

Note-The English translation of this ex-

Dark Lightning. In addition to the effect just men-tioned, it is often noticed that there exist, on the same photograph, some white streaks, images of lightning dis-charges of the usual character, and one or more fainter streaks of the charac teristic form, but darker than the darkness of the sky. These dark streaks often appear to be branches or offshoots of the bright flash. The differences in tone in such photographs are so slight that it is impossible, for reasons which will appear in a later pa-per, to reproduce them successfully in a newspaper. Distinctions which are perfectly well marked on the negative would probably not show in the printed reproduction.

The Clayden Effect.

The cause of these dark flashes was for some time obscure. A partial explanation was given ten years ago by Professor Clayden of the Royal Albert college, Exeter. He observed that if a plate which had received the impression of a lightning flash or electric mark was subscuently slightly forced. spark was subsequently slightly fogged either by exposing it to feeble diffused light or by leaving the lens of the camwithin the last ten years it has become more and more common to attempt to obtain photographs of lighting discharges. A great many good ones have been obtained and they have led to the increase of our knowledge as to the behavior of lightning. For obvious reasons these attempts are usually made at night. The camera is pointed in the direction of the storm, the lens uncovered and the slide drawn. pictures of lightning. This is, therefore, not the usual effect of photo graphic reversal, in which a very in

Miss Hattie Jennings has returned from New York, where she has been spending the past few months visiting W. J. Lawrence left yesterday for

The matter has been taken up re-cently by Professor Wood of the Uni-versity of Wisconsin to find the cause

underlying the action discovered by Clayden. He repeated Clayden's experiments and obtained the effect without difficulty. It remained only to discover the exact property to which

a narrow thread down the core. images were impressed in succe

tral core dwindles down to a mere thread, and eventually disappears, the sparks' image being feeble enough to

reverse over its entire area.

"This explains why the dark lightning flashes are usually ramifications of the main flash. The ramifications are less brilliant discharges and reverse, while the main one is too bright to cause the effect."

o cause the effect."
Other experiments appeared to sho

a difference in action between two lights from different sources, sufficient to produce the same amount of black-

ening or development; but further

careful work made it evident that the time element was the important fac-tor, and that the effect did not depend

upon any peculiar property of the elec-tric spark, other than its exceedingly

This idea was confirmed by using an arc as a source of light. The extreme shortness of exposure was attained by

means of a stationary and a revolving slit, through which the light passed only when they coincided. The plate was allowed to fall in front of these slits, and an exposure of 1-55,000 of a

second was thus obtained. The effects produced were exactly similar to those obtained when the spark was the

Wood concludes "that the action of an intense light on a plate for a very brief time interval decreases the sen-

brief time interval decreases the sensitiveness of the plate to light"; and he says: "I am not prepared to say what the nature of the change effected in the plate is. Possibly someone familiar with the theory of sensitive emulsions can answer the question." Experiments which, it is stated, are now in progress may help to this final answer.

SOCIETY NOTES.

short duration.

terday for Glenwood Springs, Colo., in company with her daughter, Mrs. Turnbull of Leadville The Opal club will meet at the Ladies' Literary club on Wednesday evening. There will be cards, dancing

Mrs. A. Scoville of Bingham left yes-

Misa Hazel Driggs entertained a de lightful party last week. Games were played and many musical selections were rendered after which a dainty cupper was served. The invited guests cupper was served. The invited guests were Misses Pearl Pratt, Hattie Driggs, Sybil Wetzel, Margaret Ryan, Vilate Eardly, Louie Morris, Alice Barton, Mamie Silver, Ethel Groesbeck, Jean Silver, Addie Cannon, Leona Taylor and Bertha Meve, Messrs, Ashly J. Wallace, Wood, Pratt, Quaylé Cannon, Irwin McNiece, Jule McMurrin, Fred Cane, Ford, Driggs, Rosco Anderson, Melvin Rich and John L'année mil neuf cents. (3) Neuf heures vingt. (4) Quatre heures vingt-cinq. (5) Huit heures moins vingt-cinq. (6) Je ne puis pas beaucoup marcher. (7) A Paris nous dinons toujours tard. (8) Le ressort de ma montre est cassé. (9) Où demeure l'horloger américain? (10) Nettoyez-la et réparez-la à la fois. (11) Vous a-t-fl demandé l'adresse? (12) Combien de langues comprennent-ils? (13) Il a dit en français: "Bonjour, mesdames et messieurs." (14) Il y a beaucoup de nos compatriotes à l'exposition. (15) Comptez-vous y aller souvent? Rosco Anderson, Melvin Rich and John

Miss Leona Taylor was the hostess of a very delightful party Friday evening. Games were played and many musical selections were rendered after which a dainty luncheon was served. The invited guests were Misses Sybil Wetzel, Margaret Ryan, May Taylor, Mamie Silver, Jean Silver, and Hana Beardshal, Messrs. Jule McMillan, Ashley Wallace, David Beardshal, Fred Care Lohn Taylor and John Thomas Cane, John Taylor and John Throup.

SALT LAKE THEATRE GEO. D. PYPER, Manager.

THURSDAY, April 12 and 13, E. D. Stair Presents the Reliable Comedians,

40 FUN **EXPERTS**

THE

In Their Musical Farce Review,

LUCY DALY, Margaret Dale Vokes, the Chicago Ladies' Quartette; Hattie Bernard, Will West, George Sidney, John W. Early and TWO DOZEN PRETTY GIRLS. Regular prices. Seats now on sale at box office.

SALT LAKE THEATRE

AFTER LENT.

Saturday, April 21, The World's Greatest Pianist

ONE NIGHT ONLY. (Steinway & Son's Piano Used.)

Seats are now SellingRapidly.

GET IN LINE. "Next a plate was exposed to one set | Box office open daily from 9 a.m. to 5 p.m. | Evans Building,

of sparks and without removing it from the camera the light of some more was diffused by holding a sheet of ground glass in front of the lens. Finally a second set of sparks was photographed. The results were similar. "These two experiments enabled me to reproduce the phenomenon of a bright flash crossing a dark one, and the reversal of one flash by the diffused glare of another." herald Specials

Co the Ladies

Read Every Day.

Paris Millinery Co., 118 South Main Street.

LADIES' SPRING SUITS, all latest

\$6.98 Up.

discover the exact property to which this effect was due.

The plate obtained by Wood, which, for reasons already given, it is impossible to reproduce here successfully, "shows a series of spark images, some normal, some partly reversed, and others wholly reversed. * * The sparks were all of equal intensity, but after each discharge the iris diaphragm of the lens was closed a little. It will be seen that the borders of the bright sparks are reversed. In some the LADIES' SPRING AND SUMMER sparks are reversed. In some the image is reversed with the exception of JACKETS and GOLF CAPES, \$5.48 Up. images were impressed in succession on the plate by moving it in the camera. * * * Of course, the room was in total darkness. After exposure the plate was exposed to the diffused light of a candle for a second or two, and then developed.

"In this series of pictures the edges of the bright images of the sparks are reversed, the intensity on the border of the image being less than at the core. As the intensity of the spark becomes less and less the bright central core dwindles down to a mere

LADIES' WASH SILK WAISTS, \$3.98 and \$4.48.

LADIES' WASH SHIRT WAISTS, Latest Design, 47c Up.



DRY GOODS STORE.

222 and 224 Main. You Can Get For This Week

LADIES' SPRING SUITS \$7.85 LADIES' DRESS SKIRTS

LADIES' WRAPPERS LADIES' SILK WAISTS

LADIES' CAPES LADIES' JACKETS

FOR...... at L. & A. COHN'S.

LADIES' PETTICOATS

SPECIAL DRESS

SKIRT BARGAIN. Ladies' Plain Black Mohair Dress Skirt, trimmed down front with two rows of narrow satin, value \$2.75,

JUST RECEIVED

this week only,

New Dressing Sacques In Challies and Cashmeres, Lace and Ribbon Trimmings.

A Magnificent Display



Spring Opening of

Ladies' Suits. Ladies' Silk Waists. Ladies' Dress Skirts.

Ladies' Capes and Jackets. NO TROUBLE TO SHOW GOODS.

NEW GRAND THEATRE M. E. MULVEY, Manag

TONIGHT And Wednesday Matinee and

The Hit of the Season,

KNOBS O' TENNESSEE, BY HAL RIED.

Predicted an immense success by last night's packed house.

Patents taken out through us receive spen Patents taken out through us receive spen notice, without charge, in THE PATENT REAS an illustrated and widely circulated journ consulted by Manufacturers and Investors. Send for sample copy FREE. Address, VICTOR J. EVANS & CO.

(Patent Attorneys,)

WASHINGTON, D. G.